The Role the Care and Guidance of the Patient Play in the Treatment of Pulmonary Tuberculosis

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THE care and guidance of the patient in whom the diagnosis of pulmonary tuberculosis has been established is a phase of tuberculosis work which, I believe, in general has not received the consideration it should. It is a phase of this work to which those engaged in research have devoted relatively little or no attention. There is no part of this work in which there is a greater diversity of opinion and action, yet it particularly involves the crux of all our efforts, that is, the prevention of death or chronic invalidism from pulmonary tuberculosis—a disease now acknowledged as curable.

In a brief review of the history of tuberculosis control it becomes apparent that the countless measures tried both in the prevention and the treatment of this disease down through the centuries have up to the past two or three decades been found wanting. And there is still no specific means for the control of this disease.

The use of BCG as a preventive measure must still be conceded to be in the experimental stage. The antibiotic drugs, while promising, are only adjuncts in treatment to be used always with a clear understanding of their indications and contraindications and only as an aid to the usual, accepted measures of treatment. When used otherwise, they may be harmful.

In reviewing more recent history it is found that during the past 50 years tuberculosis as a cause of death has dropped down from first to seventh or eighth place. But that information does not mean all that might be implied. Of all chronic preventable diseases, pulmonary tuberculosis continues to present the most important medical, public health, social and economic problems throughout this country. It is still the first cause of death in that very important age period from 15 to 35 years — the formative and productive period of life. It is estimated that there are at least 500,000 open cases of tuberculosis in the United States at present—one half of which as yet have not been found. This vast army of patients continues to sow the seeds of new disease—a disease that strikes its greatest blow in the prime of life.

Fortunately there is a bright side to this somewhat gloomy picture of tuberculosis. Science and clinical experience, especially during the past two or three decades, have placed at our command the measures essential for the control of tuberculosis. Today, continuous spread of this disease is unwarranted and death or chronic invalidism from tuberculosis is unnecessary. They are the result of neglect to use the measures at hand. There are a few districts in this country where these preventive measures have been put into effective operation with the result that, for practical purposes, tuberculosis has been eradicated in those areas. In a group of counties in southern Minnesota there are approximately 300 small town and rural elementary schools where there is not a child that has been infected with the tubercle bacillus. It is true that circumstances differ in different localities. The underlying principle, however, is the same. The results obtained in any area will depend on the type and intensity of the effort made.

It is a provocative thought, particularly to those of us engaged in this work, that of the nine leading or first causes of death, tuberculosis is the only one that we possess the means to eradicate.

Fundamentally, control of tuberculosis is through education—education of the public to prevent it and education of the patient and those near and dear to him to cure it. The medical profession, the profession as a whole, is primarily responsible for this education. All our national organizations concerned with the control of tuberculosis now realize that the opportunity for all physicians to obtain a practical working knowledge of tuberculosis while they are medical students has been one of the most overlooked factors, and at the same time the most important, in tuberculosis control. The general practitioner or family physician, because of his close association with the family, must occupy an important place not only in the prevention of tuberculosis but also in the treatment during what are ordinarily termed the pre- and post-sanitarium periods. The application of the principles of treatment during the active stage of the disease, or during that stage which is ordinarily called the sanatorium period is, however, a highly specialized field necessitating extensive training and experience. In the guidance of the patient with active tuberculosis back to health there are some four or five educational factors, paramount in the adjustment of the patient to the cure, which the patient and those near to him should clearly understand at the outset—that is, before the patient enters the sanatorium or begins the cure.

These factors are:

1. Pulmonary tuberculosis, regardless of the extent of involvement apparent in the lungs, always seriously endangers the life of the patient unless and until it is brought under control. On the other

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hand, if the patient has the right advice and guidance and the ability to undergo the necessary treatment, he has an opportunity to regain his health and to live as long and as useful a life as he would have lived if he had not had tuberculosis. For the mental rehabilitation of the patient it is important for him to understand the possibilities as they pertain to cure of the disease. Mental rehabilitation is so closely entwined with the treatment or physical rehabilitation that it should also be begun at the outset. The two must be carried along together throughout the course of the disease. If this procedure is followed, when the disease is overcome the rehabilitation is complete.

2. The treatment of pulmonary tuberculosis does not consist of the administration of medicines or drugs; it is, rather, an agreement or contract between the patient and those near to or responsible for the patient, and the physician. The purpose of this agreement or contract is to devise and carry out a mode of life for each patient that will enable him to regain his health. In this contract it must be understood that the patient undergoes the treatment for cure, the physician provides the means by instruction and guidance, while those near to the patient occupy a position of determining influence. The outcome is determined for the most part by the efficiency with which each party to this agreement discharges his responsibility.

3. A certain proportion of patients, estimated to be one out of every four, who have pulmonary tuberculosis, even though the disease may be in the advanced stages, will overcome the disease and regain health without treatment, or in spite of treatment, if the treatment which may have been instituted does not interfere with the normal course of the disease. These are patients who have what is classified as the resolving type of pulmonary tuberculosis—a type of the disease which is not influenced by treatment. The reasons for the development of this type of disease in some patients are not entirely clearly understood. They are usually explained on the basis of the size and severity of the initial infection and the degree of the allergic response to the infection. It is patients with this type of disease who are responsible for the popularizing of unorthodox special types of treatment or treatment by quack remedies and nostrums. The other three patients out of the four, if they were to attempt to overcome the disease without rational treatment, would die of a disease that is curable. At the onset there are no means by which it can be determined in which patients the disease will clear up if treatment is not instituted. All patients must take the steps toward cure and be guided with the utmost caution until it is clearly evident what course the disease will follow.

4. There are no two patients in whom pulmonary tuberculosis develops in the same way. Likewise there are no two patients who respond to therapy in the same way. This is true because there are no two patients who have the same resistance to the tubercle bacillus and the products of its growth and destruction. There are no two patients who are infected with the same dosage of tubercle bacilli or with bacilli of the same virulence. There are no two persons who are able to adjust themselves to the cure in the same way. And there are many other variables. There are a few general principles that apply to the care of all patients with tuberculosis, but the details of treatment must be worked out for each patient according to the indications in any particular case. It is attention to details that cures tuberculosis. It is neglect of details that causes death. The institution of and the carrying out of the details essential for the individual patient are made possible only by a close patient-physician relationship, a relationship attained through a mutual understanding and a mutual confidence.

5. Tuberculosis is not cured by climate or diet or drugs or by exposure to the sun's rays. Experience has demonstrated that when the treatment which patients receive is relatively the same, the results obtained in the different climates in different parts of the country are relatively equal. There is no special diet for the treatment of tuberculosis. Patients with this disease require a balanced nutritious diet. They should not be overfed. The digestive system needs rest as does the body as a whole. The diet should be regulated so that patients who are underweight gain at the rate of three or four pounds a months up to normal or a little above normal, and the diet should then be adjusted to hold that weight. The type and quality of the food and the manner in which it is served should be such as to tempt the appetite. It is best that the food be served in three fairly equal meals a day, avoiding between-meal feeding, except in special cases, as it tends to interfere with the appetite for the regular meals. It should be made clear to the patient that eating is a habit and that not eating is a habit and that appetite comes with eating. The patient's attitude toward food and toward his ability to take it and digest it are the determining factors as to whether or not he is able to take and digest his food.

Drugs or medicines other than the antibiotics, if and when used in the treatment of tuberculosis, are used to treat symptoms and complications. Patients adjusted to the regimen for cure, regardless of the stage of the disease, rarely have symptoms or complications. When patients following the necessary physical regimen have symptoms, the symptoms are, with a few exceptions, functional rather than the result of organic disease. They are the result of the physiology of the body being disturbed by the emotions. These symptoms are real—not imaginary. The treatment in these circumstances is not the administration of drugs which will further upset their physiology. These patients need vocal sedative; they must be talked to so they will understand and be reassured and relaxed. The treatment of pulmonary hemorrhage with narcotics or sedatives which interfere with or destroy the cough reflex is an illustration of the possible deleterious effect resulting from the disturbance of the normal physiology by

the use of drugs. The usual result of this method of treatment of hemorrhage is retention of the aspirated blood, atelectasis, and dissemination of the tuberculosis. The treatment for pulmonary hemorrhage is reassurance.

Sitting in the sun's rays, especially in the heat of the day, is mentioned only to be condemned as a hazardous procedure for patients with active pulmonary tuberculosis.

In brief the treatment of pulmonary tuberculosis is the management of the person who has it—management from every angle, especially the psychological. More specifically, it is the outlining of a mode of life for each patient according to the indications in his case and the control of the patient so that he follows that mode of life in strict detail. The basis for this mode of life is rest and time—rest carried out over a sufficient length of time to accomplish the desired results. Physiologists regard rest as the natural defense of the body. Cannon, in discussing rest, expressed the belief that every physician knows that, given rest (rest for the body) and peace of mind (rest for the mind) and proper food, 90 per cent of patients will get well. Allen Krause, writing about rest in the treatment of tuberculosis in 1918, said that until ever patient on being asked, "What is the most important factor in the treatment of tuberculosis?" will unhesitatingly answer, "Rest," the discussion of the subject will always be timely.

Rest for a patient with pulmonary tuberculosis is not synonymous with the term rest for a tired healthy person. In the treatment of tuberculosis, while the quantity and duration of rest are important, the basic emphasis must be placed on the quality of rest. Rest for a patient with tuberculosis means lying in the horizontal position, mentally and emotionally relaxed, 24 hours a day, seven days a week and 52 weeks a year, for as many months or years as may be necessary for any particular patient to control the disease. Patients should know that by injudicious activity it is possible to undo in five or ten minutes what they have accomplished in months. Patients should be instructed to lie for the most part in that position which is the most comfortable. They should be told, however, to turn on either side, using as little energy as possible, every three or four hours during the period they are awake, for 10 or 15 minutes, so as to promote pulmonary drainage. Frequently cavities are located toward the posterior part of the lung, and this maneuver will tend to decrease useless cough and relieve toxemia by facilitating drainage of these areas. The duration and extent of intensive rest will be determined by the extent and acuteness of the disease, the physician's control of the patient and the ability of the patient to adjust himself to the regimen for cure. Patients with active pulmonary tuberculosis must be trained to follow a strict regimen. Any permitted deviation, especially at the outset, from a strict regimen tends to lead to other deviations. When patients are in the semi-reclining position the vertical excursion of the lung during respiration ordinarily is not as great as it is in the horizontal position but, when they are permitted to assume the reclining position, patients, as a rule, interpret the liberty as license to indulge in various other oftentimes harmful activities.

Mental and emotional relaxation is imperative. Without it physical rest is impossible. As Pinner pointed out, being in bed is not bed rest for a patient with pulmonary tuberculosis. When a patient is not controlled mentally, emotionally and physically he will consume needless energy and at the same time interfere with the delicate healing process in the lungs and flood his system with toxins and bacilli from the pulmonary foci by fretting and fussing and worrying, by twisting and turning and lying in strained positions and pulling at the bedding, by excesses in talking and being talked to, in reading, in writing, in listening to the radio and countless other needless activities. Any activity—mental, emotional or physical—increases activity in the lungs and of the lungs. The objective is to reduce lung activity to a minimum. The more nearly patients, especially those with acute disease, approach the state of vegetating, the more gratifying the results.

Mental and emotional rest for the patient with pulmonary tuberculosis is secured by treating the patient as a person. The primary factor in treating the patient is to tell him the truth. It is the uncertainties or the unknown in life that upset persons, regardless of what walk of life is involved. To patients with tuberculosis the truth may be and often is a great shock at the outset, but in practice it is only by knowing and understanding the truth that they are able to adjust themselves to the situation and to meet it with intelligence and efficiency.

When the diagnosis of pulmonary tuberculosis is established, the physician must take time, usually one to two hours or longer, to talk to the patient and those near to the patient. He should have the opportunity to tell them about the patient's tuberculosis. He should show them the x-ray pictures of the patient's chest and compare these pictures with the pictures of a normal chest, and with any previous pictures of the patient's chest that may be available.

In spite of the difficulties that arise in the interpretation of x-ray pictures of the chest, the explanation of the patient's pictures to him has a pronounced as well as a gratifying influence in enabling the average patient to visualize the disease and to adjust himself to the cure. The patient, and those near to him, must be told about the cure. They should understand what is meant by the cure, the part the patient and those responsible for the patient must play in it. They must understand what and what not to expect from the physician. They should always understand that it is the patient who has tuberculosis, that it is the patient's life that is at stake, that it is the patient who must follow the regimen for cure, and that there are no short cuts to recovery.

There is nothing that will save the physician's time more than the preparation of the patient and those on whom he depends for the task ahead, by a painstaking explanation of the situation as a whole before the patient begins to follow the regimen for cure. With this approach, and with the advantage of the right atmosphere, it is rare after the patient begins the cure that it will be necessary for the physician to spend more than a moment or two with the patient as he makes his observation rounds.

A sanatorium must not be regarded as just a place where the patient has a bed and a tray and a nurse and a physician. A sanatorium, if it serves its purpose, is in the first place an atmosphere in which each patient is leading the kind of life he must lead for cure of tuberculosis. Consequently, each patient has the moral support and mutual sympathy of all the other patients as well as the beneficial influence of mass psychology. These factors exert a powerful influence in enabling patients to adjust themselves to the regimen. In the second place, a sanatorium must be an educational institution where the patient is taught and trained how to get well and stay well.

Many and varied "reasons" are presented for patients' leaving sanatoria against medical advice. Most of these reasons are in reality only excuses advanced by the maladjusted patient. There are three fundamental reasons for patients' leaving the sanatorium contrary to a physician's advice. They are:

1. Failure of the physician to "sell" the cure and himself to the patient and to those responsible for the patient at the outset.

2. Failure of the sanatorium to perform its function as an atmosphere conducive to the patient's adjustment to the cure.

3. Occasionally, uncontrollable psychological imbalance in the patient, independent of tuberculosis.

In other words, when the patient has been skillfully approached by the physician before he enters the sanatorium, and has had the disease and the cure explained to him, he enters the sanatorium with optimism and a determination to recover. The patient's ability to adjust himself strictly to the regimen for cure will depend for the most part upon the influence which his physician has over him and upon his environment.

The degree to which any patient has controlled his disease is determined largely by the reaction of his condition to graduated exertion. The physician must be the judge as to when graduated exertion may be prescribed. Such exertion is very carefully increased and carried out in a systematic course under close supervision which enables the physician to observe the reactions and to guide the patient to a physical and mental state of rehabilitation.

Mechanical and antibiotic therapy should be considered in the care of all patients. At the beginning, however, unless there are definite indications to the contrary, all patients should have an opportunity for a period of time, usually from three to six months, to demonstrate whether or not they can control the disease on the rest regimen alone.

Pinner expressed the opinion that the physician's estimation of the value of rest in the treatment of pulmonary tuberculosis is entirely dependent upon his willingness to try rest over a sufficient length of time and under circumstances that would enable him to have a knowledge and understanding of what rest will accomplish. Peck expressed the belief that, for the most part, physicians turn their backs on rest by giving it lip service only, and that in most sanatoria today collapse or mechanical therapy is so extensively carried out that there is no opportunity to determine what rest alone will do. Mechanical treatment of pulmonary tuberculosis is now developed to a high degree of efficiency. Today it saves the lives of a vast number of patients with pulmonary tuberculosis and restores them to a social and economic state of efficiency. The antibiotics are likewise instrumental in enabling many patients with tuberculosis to regain health.

Mechanical and antibiotic therapy, however, are not the treatment of pulmonary tuberculosis. Rest is the treatment. Mechanical therapy and the antibiotic drugs supplement rest, but they do not supplant it.